Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) Method for controlling ~~the~~ a spatio-temporal uniformity of a pulsed gas laser beam, in which a pulsed electric discharge is brought about in a gas between two electrodes spaced apart ~~(101, 102)~~ and an X-ray preionisation beam ~~(104)~~ is applied to ~~this~~ the gas, wherein an ~~whose~~ axis of the X-ray preionisation beam is substantially in alignment with ~~that~~ an axis of the electric discharge, ~~characterised in that~~ the method comprising:

producing a lateral intensification of ~~the~~ an electric field ~~is produced~~ in the space between the two electrodes ~~in order~~ to stabilise the electric discharge in time and space[[,]]; and

~~in that~~ generating an axial intensification of the X-ray beam ~~is produced in order~~ to compensate for the modifications of ~~the~~ an uniformity of the electric discharge resulting from ~~this~~ the lateral intensification of the electric field by a progressive mask.

2. (Currently amended) ~~Laser for carrying out the method according to claim 1, characterised in that it comprises~~ Pulsed gas laser comprising:

two electrodes adapted to support a pulsed electric discharge brought about in a gas therebetween; and

a mask for applying an X-ray preionisation beam to the gas, the X-ray beam having an axis substantially in alignment with an axis of the electric discharge, wherein at least one ~~electrode (101) which~~ of the two electrodes is profiled ~~in order~~ to comprise two raised lateral portions ~~(111, 121)~~ which allow ~~the~~ a lateral intensification of the electric field to be obtained in ~~this~~ a region between the two lateral portions, wherein said mask is a progressive mask relative to the X-ray beam to progressively attenuate from a center of the electric discharge to edges

thereof the X-ray preionisation beam to compensate for lack of uniformity of the electric discharge resulting from the intensification of the electric field at the edges thereof.

3. (Currently amended) Laser according to claim 2, ~~characterised in that the~~ wherein a height of the raised lateral portions ~~(111, 121)~~ is substantially in the order of one hundredth of ~~the~~ a distance between the two electrodes ~~(101, 102)~~.

4. (Currently amended) Laser according to either claim 2 or claim 3, ~~characterised in that~~ wherein the two electrodes ~~(101, 102)~~ are profiled ~~in order~~ to obtain the lateral intensification of the electric field.

5. (Canceled)

6. (Currently amended) Laser according to claim 2 ~~5, characterised in that~~ wherein the progressive mask ~~(103)~~ is formed by a plate which absorbs the X-rays and ~~whose~~ having a thickness ~~is~~ reduced progressively from ~~the~~ locations opposite to the two raised lateral portions ~~(111, 121)~~ where ~~the~~ an absorption of the X-rays is at a maximum as far as a central portion where the absorption is substantially zero.

7. (Currently amended) Laser according to ~~either~~ claim 2 [[5]] or claim 6, ~~characterised in that~~ wherein the progressive ~~nature of the~~ reduction in the thickness of the plate ~~(103)~~ which absorbs the X-rays ~~allows the~~ is configured to allow a profile of ~~the~~ an absorption curve ~~(106)~~ of the X-rays to be adapted to ~~the~~ a profile of the variation of the electric field between ~~these~~ the two lateral intensifications.

8. (Currently amended) Laser according to ~~either~~ claim 2 [[5]] or claim 6, ~~characterised in that~~ wherein the plate ~~(103)~~ which absorbs the X-rays is reduced in thickness in accordance with two substantially linear ramps ~~(113, 123)~~ which extend from one of ~~the~~ surfaces thereof in the region of the edges of the electric discharge ~~in order~~ to open at ~~the other~~ another surface, with a central hole ~~(133)~~ being ~~defined~~ configured which corresponds to ~~the~~ a maximum transmission.

9. (Currently amended) Laser according to claim 2, ~~characterised in that it~~ wherein the laser is of ~~the~~ excimer type.